

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-28 (Canceled).

Claim 29 (New): A data processing apparatus for identifying whether first image data was generated by a predetermined image generating apparatus, comprising:

a light receiving unit configured to receive respective light on respective elements;

a correlation detection unit configured to detect the variations in strength of different light receiving elements; and

an identifying unit configured to identify whether said first image data was generated using said image generating apparatus based on said correlation detected by said correlation detecting section.

Claim 30 (New): The data processing apparatus of claim 29, wherein the light receiving unit includes a plurality of light receiving elements, each of the light receiving elements include a silicon substrate, a light blocking layer provided at an aperture, a condensing lens, and an insulating layer, and the condensing lens is disposed to reach the silicon substrate through the light blocking layer from a position at an opposite side from the silicon substrate relative to the light blocking layer.

Claim 31 (New). The data processing apparatus of claim 29, wherein the correlation detection unit includes

a first fast Fourier transform circuit configured to apply a Fourier transform to reference image data to generate first frequency component data;

a first whitening circuit configured to divide first complex number data forming the first frequency component data by an absolute value of each complex number data to generate first complex number data;

a second fast Fourier transform circuit configured to apply a Fourier transform to the first image data to generate second frequency component data

a second whitening circuit configured to divide second complex number data forming the second frequency component data by an absolute value of each complex number data to generate second complex number data;

a complex conjugation circuit configured to substitute each complex number data forming the second complex number data with a complex conjugate complex number data to generate third complex number data;

a multiplication circuit configured to multiply the first complex number data and the third complex number data to generate fourth complex number data; and

an inverse fast Fourier transform circuit configured to transform the fourth complex number data to generate correlation data, wherein the correlation data indicates all values for which a correlation is obtained by cyclically shifting the relative positions of the first image data and the reference image in two dimensions.

Claim 32 (New): The data processing apparatus of claim 29, wherein the correlation detection section is configured to cut out first subset image data from reference image data based on a first cutout position, to cut out second subset image data from the first image data based on a second cutout position shifted with respect to the first cutout position, and to detect a correlation between the first subset image data and the second subset image data.

Claim 33 (New). The data processing apparatus of claim 29, further comprising:

a reference image generating unit configured to generate a plurality of reference image data and to average said plurality of reference image data to generate second image data; and

said correlation detection unit is configured to detect a correlation between said first image data and said second image data.

Claim 34 (New): The data processing apparatus of claim 29, further comprising:

a reference image generating unit configured to generate a plurality of second image data by making light strike said elements in a plurality of states of different lens apertures, and

said correlation detection unit is configured to detect a correlation between said first image data and said second image data.

Claim 35 (New): A method for identifying whether first image data was generated by a predetermined image generating apparatus, comprising:

receiving respective light on respective elements of a light receiving unit of a data processing apparatus;

detecting the variations in strength of different light receiving elements; and

identifying whether said first image data was generated using said image generating apparatus based on said correlation detected by said correlation detecting section.

Claim 36 (New): The method of claim 35, wherein the light receiving unit includes a plurality of light receiving elements, each of the light receiving elements include a silicon substrate, a light blocking layer provided at an aperture, a condensing lens, and an insulating layer, and the condensing lens is disposed to reach the silicon substrate through the light

blocking layer from a position at an opposite side from the silicon substrate relative to the light blocking layer.

Claim 37 (New). The method of claim 35, further comprising:

applying a fast Fourier transform to reference image data to generate first frequency component data;

dividing first complex number data forming the first frequency component data by an absolute value of each complex number data to generate first complex number data;

applying a second fast Fourier transform to the first image data to generate second frequency component data;

dividing second complex number data forming the second frequency component data by an absolute value of each complex number data to generate second complex number data;

substituting each complex number data forming the second complex number data with a complex conjugate complex number data to generate third complex number data;

multiplying the first complex number data and the third complex number data to generate fourth complex number data; and

inverse fast Fourier transforming the fourth complex number data to generate correlation data, wherein the correlation data indicates all values for which a correlation is obtained by cyclically shifting the relative positions of the first image data and the reference image in two dimensions.

Claim 38 (New): The method of claim 35, wherein the correlating comprises:

cutting out first subset image data from reference image data based on a first cutout position,

cutting out second subset image data from the first image data based on a second cutout position shifted with respect to the first cutout position, and

detecting a correlation between the first subset image data and the second subset image data.

Claim 39 (New). The method of claim 35, further comprising:

generating a plurality of reference image data and averaging said plurality of reference image data to generate second image data; and

detecting a correlation between said first image data and said second image data.

Claim 40 (New): The data processing apparatus of claim 35, further comprising:

generating a plurality of second image data by making light strike said elements in a plurality of states of different lens apertures, and

detecting a correlation between said first image data and said second image data.